

AMENDMENTS TO THE CLAIMS

1. (Currently amended) An organic light emitting diode (OLED) comprising a substrate bearing a light emitting layer between an electrically conducting anode and an electrically conducting cathode, the diode being configured for light emission through said cathode, the cathode being transmissive at a light emission wavelength of the diode, and the cathode comprising an electron injecting layer for injecting electrons into said light emitting layer, an optical interference structure, and an electrically conducting layer, said electron injecting layer being closest to the light emitting layer and said optical interference structure being disposed between said electron injecting and electrically conducting layers, wherein said cathode incorporates an optical interference structure is configured to enhance light transmission through said cathode at said emission wavelength.

2. (Original) An OLED as claimed in claim 1 wherein said cathode comprises an optical interference layer lying between first and third layers of different refractive indices such that reflections from front and back surfaces of said optical interference layer interfere to enhance light transmission through said cathode at said emission wavelength.

3. (Currently amended) An OLED as claimed in claim 2 wherein said first layer comprises [[an]] the electron injecting layer for injecting electrons into said light emitting layer, and wherein said third layer comprises [[an]] the electrically conducting layer.

4. (Previously presented) An OLED as claimed in claim 2 wherein said optical interference layer has an optical thickness of between a third of said emission wavelength and a fifth of said emission wavelength.

5. (Original) An OLED as claimed in claim 4 wherein said optical interference layer has an optical thickness of substantially a quarter of said emission wavelength.

6. (Previously presented) An OLED as claimed in claim 1 wherein said emission wavelength is substantially equal to a peak or center emission wavelength of said light emitting layer.

7. (Previously presented) An OLED as claimed in claim 2 wherein said third layer comprises a metal layer.

8. (Previously presented) An OLED as claimed in claim 2 wherein said optical interference layer comprises a wide bandgap semiconductor.

9. (Previously presented) An OLED as claimed in claim 2 wherein said optical interference layer comprises a transparent conductor.

10. (Previously presented) An OLED as claimed in claim 2 wherein said optical interference layer comprises a dielectric material.

11. (Previously presented) An OLED as claimed in claim 2 wherein said electron injecting layer includes a layer of a metal.

12. (Previously presented) A display device including an OLED as claimed in claim 1.

13. (Previously presented) An organic light emitting diode (OLED)-based display device including one or more OLEDs each comprising a layer of OLED material sandwiched between anode and cathode electrode layers, said OLED material electroluminescing when a current is passed between said anode and cathode electrode layers, a first of said electrode layers being at least partially transmissive at a peak wavelength of said electroluminescence and being closer to a display surface of said device than the second of said electrode layers whereby the device is configured for electroluminescent display through said first electrode layer, wherein said first electrode layer comprises a spacer layer sandwiched between a coupling layer for connecting to said OLED material and a third, substantially electrically conductive layer, and wherein said spacer layer has a thickness of approximately an odd integral number of quarter wavelengths at said peak electroluminescence wavelength such that transmission through said first electrode layer at said peak electroluminescence wavelength is substantially maximised.

14. (Original) An OLED-based display device as claimed in claim 13 wherein said first electrode layer is said cathode electrode layer.

15. (Previously presented) An OLED as claimed in claim 8 wherein said wide bandgap semiconductor comprises zinc selenide or gallium nitride.

16. (Previously presented) An OLED as claimed in claim 9 wherein said transparent conductor comprises indium tin oxide or indium zinc oxide.